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A USEFUL PAPER.

This week we print an abstract of a lecture by Mr. Hugh Begg, which is noteworthy in more than one respect. Written for the enlightenment of the public and not of the profession, it contains nothing new to veterinary surgeons. But it was delivered before a representative agricultural audience, and has been widely circulated in the Scottish Press; and therefore it should have considerable educational effect.

It will do much to support the system of veterinary examination at horse shows. That system is such a recent introduction in Scotland that there is still not a little prejudice against it, which the lecture will help to remove. It should also tend to bring about a better appreciation of the veterinary surgeon's position amongst stockowners, and this not only in questions of soundness. It will help stockowners to realise the difficulties of diagnosis in a wider sense.

It is not often that a veterinary surgeon addressing a popular audience speaks so frankly of the difficulties and uncertainties of diagnosis as Mr. Begg did. To do so was well; to cite examples, explaining the cause of the difficulties, was better. Popular lectures on these lines show stock-owners that a veterinary surgeon can see much further into a case than the untrained man. They show also that veterinary knowledge has its limitations, that veterinary judgment is not infallible, and that there are many cases in our work which will always give rise to honest divergence of opinion. In admitting and illustrating this, Mr. Begg set a good example to the profession—not only to those who appear upon platforms, but to all who are engaged in practice.

We have often written of the evils of undue dogmatism on the part of veterinary surgeons. We now suggest one effect it may have on the stockowner. Owners see veterinary surgeons who never own themselves in doubt, and never admit that an opinion contrary to their own can be worthy of regard. Owners know, also, how frequently and how widely our opinions differ. Is it surprising that this should incline some owners to think lightly of our profession? We think not; and the blame lies, not with the ignorant owner, but with the too dogmatic veterinary surgeon. If we would deal frankly with our clients, and help them to understand something of the difficulties and complexities surrounding examination for soundness and the most everyday work of diagnosis, we should find them less apt to draw unfavourable conclusions from our numerous and unavoidable differences of opinion.

THE "NEW" METHOD OF ADMINISTERING CHLOROFORM.

Attention has recently been called to a "new' method of administering chloroform to human patients, namely by passing chloroform vapour through warm water, and like most new methods has been received somewhat sceptically. It would seem, however, that its use would prove most serviceable in the case of the smaller domesticated animals. It has been said that the washing of the chloroform vapour in warm water lessened the shock of its administration on account of the consequent rise in temperature, and also removed the "toxic principles," hence its lessened toxicity. That the increased temperature lessens shock there can be no question, but with regard to the "toxic principles" one has reason to doubt the accuracy of the statement, since chloroform, in the process of manufacture from alcohol and bleaching powder, distils once with a quantity of warm water, and moreover it is commonly washed a second time to remove traces of alcohol which are present. It would seem, however, that the comparatively large amount of moisture present in the vapour after its passage through warm water, accounts to a great extent for its lessened toxicity. In some experiments which I have recently carried out it was found that 5·5 litres of air, carried by means of an aspirator through chloroform, then warm water (a little below boiling point) and finally through two weighed U tubes containing Calcium Chloride, carried over 9·6 grammes of Chloroform, and the increase in weight in the two U tubes, due to the water absorbed from the vapour was ·97 grammes, whereas when air alone was passed through similar U tubes the increase in weight due to the atmospheric moisture in 5·5 litres of air was ·0825 grammes, which gives an increase of ·8875 grammes. Further, when air is pumped through in the ordinary manner the quantity of moisture is exactly double the above.

That the good effects of this method are due to the water seems evident, for when such vapour is administered after being passed through Calcium chloride tubes, and hence dried, although washed previously in warm water, and still warm, no difference could be noticed between the effect of this vapour and that administered without previous washing.

The advantages of the method are that one can administer chloroform to young animals or animals *in extremis* with far greater safety than by the usual method, and further the patients "go under" more quickly. In support of this statement I may

say that a fox-terrier puppy, four months old "went under" in seven minutes, remained anæsthetised for 58 minutes, and had completely recovered from the effects in ten minutes; moreover, during this time the puppy received 6·5 drachms of chloroform. Again a fox-terrier dog, nine years old, had been injured by another dog, one eye being destroyed and the other seriously injured, as a result of which he was unable to find his way out of a large garden for six days. During this time he had had but little food, if any. It was found necessary to remove the putrid eye immediately. He was chloroformed in the new way, was completely anæsthetised in four minutes, and remained so for 20 minutes, while the eye was removed and the frontal sinus curetted, pus having formed there as a result of a perforation by a tooth of the other dog. He recovered sufficiently to be placed in a kennel in 15 minutes, and continued to do well.

If space permitted I could quote numerous other instances where this method of administering chloroform has been most useful, while the results of the ordinary method would have been distinctly doubtful.

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ABSTRACTS FROM FOREIGN JOURNALS.

The Ascaris Megalocephala.

Wilhelm Greim, of Hof, after a study of this parasite has arrived at the following conclusions:—

(1) The presence of *Ascaris megalocephala* may induce symptoms of disease in the horse.

(2) The ascaris irritates the intestinal mucous membrane by its movements.

(3) By the aid of its lip-apparatus, it scratches the mucous membrane and produces small wounds.

(4) Such lesions, when numerous and situated in close proximity to one another, may lead to inflammation, ulceration, and necrotic destruction of small portions of the mucous membrane.

(5) By its individual strength the ascaris cannot perforate the intestine.

(6) The parasites live free in the lumen of the intestine; and, contrary to the views repeatedly expressed hitherto, they are not able to suck from or to hook on to the intestinal mucous membrane.

(7) The *ascaris* contains toxin in its body, and disperses it into its surroundings.

(8) The effects of the toxin consist of local irritation, alteration of the nervous system, and toxic action upon the heart and blood.

(9) An affection of the kidneys in connection with the excretion of the toxin cannot be demonstrated.

(10) The pathogenic importance of the parasite renders it necessary to administer anthelmintics to the horses infected with it.—(*Berliner Tier. Woch.*)

Tuberculosis in Goats.

Hertha, who has been studying this subject at the Hygienic Institute of the Berlin Veterinary School, says that caprine tuberculosis is more common than is generally believed. Its percentage, on the average, amounts to 0,72 in Germany and 0·63 in Prussia. The highest percentage obtained hitherto is one of 20·73.

In respect of frequence, tuberculosis of the goat takes the third place, coming immediately after that of the ox and pig. Tuberculosis is more frequent in the goat than in the sheep. In Germany, caprine tuberculosis is generally found proportional to the bovine disease.

The lesions differ notably in their anatomico-pathological aspect from those of tuberculosis in other domestic animals. The tubercles of the goat resemble the lesions of echinococcosis—a smooth-walled capsule with fairly consistent contents, often calcified, and grey, greyish-white, or greyish-green in colour. These contents can be enucleated *in toto*.

Histologically, these tubercles show a central detritus, with peripheral giant, round, and epitheloid cells. The external boundary is constituted by a relatively large layer of fusiform cells.

The tubercle bacillus cannot be seen in either scrapings or sections, even in the case of recent lesions. On the other hand, it is regularly found in guinea-pigs which have been inoculated with the tuberculous material.

In all the author's cases the bacillus recovered has been of the bovine type.—(*Annales de Méd. Vét*).

Human Anthrax in Germany.

In the year 1910, 287 cases of human anthrax, 9 of them in children under 14 years old, occurred in Germany. Of the patients. 257 were males and 30 females. There were 39 deaths, made up of 32 men, 6 women, and 1 child.

In 142 cases, (or 49½ per cent.) the infection proceeded from contact with living animals affected with anthrax, or animals dead of anthrax, or their flesh. Products of animal origin used in trades or manufactures led to infection in 135 cases. In one case, working with anthrax bacilli was the cause. In the remaining nine cases, the cause could not be ascertained.

The agricultural industry supplied 121 cases with 12 deaths; 92 cases with 16 deaths occurred in tanneries; and 11 cases with 1 death in horse-hair spinning establishments.—*Berliner Tier. Woch.*

The Dissemination and Action of the Pentastomum Tæniodes.

Prof. Stefan von Ratz, of Budapest, discusses (*Allatorvosi Lapok*) this question. The developed examples of the *Pentastomum tæniodes*, or, more correctly of the *Linguatula Chinasia*, live in the nasal cavities of the dog, wolf, and fox; but they are also found in the same position in herbivora, and even in man.

The *larvæ* occur in the thoracic and abdominal viscera, for the most part in the liver, lungs, and mesenteric lymphatic glands, and are often found free in the pleural and peritoneal cavities of the hare, guinea-pig, goat, sheep, horse, ox, pig, deer, cat, etc., in addition to those of man.

Among the dogs subjected to post mortem examination at the Pathologico-Anatomical Institute of the Royal Veterinary High School of Hungary, the parasites were not infrequent. Usually they were found singly, and the highest number found in one dog was five.

The larvæ are not rare in guinea-pigs, hares, rabbits, deer, goats, sheep, oxen, and buffaloes. In many animals only one or two specimens are found, but the author found several hundred in one goat.

The ripe ova pass out from the host's nose on to plants, and with them into the stomach of (usually) herbivora. Here the embryos, and later the larvæ, penetrate the intestinal wall into the blood and lymph vessels, and pass in these to the different organs, where the larva (formerly known as *Linguatula serrata* or *Pentastomum denticulatum*) developes further. Afterwards it becomes encysted or wanders farther into the serous cavities.

The author's results do not support the view formerly held of the active wanderings of the *Linguatulæ* in the bronchi.

Infection in carnivora occurs as follows: Carnivorous animals take up the larvæ of the parasite with the lungs, liver, etc., which they devour. The larvæ wander from the stomach through the œsophagus into the mouth, and thence into the nasal cavity. Moreover, when infected food is swallowed, single free larvæ may adhere to the palate and from there migrate into the nasal cavity. Finally, the author has experimentally proved that animals may acquire young linguatulæ in their nostrils by smelling at organs containing larvæ.

When in the nasal cavities the parasite causes bleeding. More rarely it occasions violent inflammation and nervous symptoms resembling those of rabies.—(*Berliner Tier. Woch.*).

W. R. C.

Unsoundness in Horses, with Remarks on the Attitude of the Veterinary Profession.*

By Mr. Hugh Begg, M.R.C.V.S.

My greatest difficulty has been to determine which of the many aspects of the theme would be most suitable for consideration here. I would gladly have been relieved of the responsibility of making a choice.

To the horse-breeder or buyer, as well as the veterinary surgeon, the legal aspect of this topic, and the great question of the heredity of many forms of unsoundness, are of such vital importance that either, if dealt with in detail, would furnish more material than we could handle in the time at our disposal. And, in view of the fact that in occasional lawsuits, eminent, experienced, and trusted veterinarians are seen to give apparently contradictory opinions, I am not sure that a plebiscite of my professional brethren would have given me much encouragement to appear before you as I now do. Sleeping dogs may wake up, and the Philistines may bring the status and attitude of the profession under review, but I cannot range myself with those who are timorous for the veterinary profession in this matter. I prefer to deal openly with this very phase of the question, and and run the phantom risk of lowering our professional dignity, in the hope that this may help to obviate on your part the harbouring of any ignorant conception of our capabilities, for I cannot believe that any portion of our repute is of material or permanent value to us, individually or collectively, that is based on any false premise.

Value of Veterinary Experience.

My estimate of the great value of the earnest veterinary surgeon to owners and breeders of horses is already formed, and I cannot bring myself to believe that your regard or demand for his services will be lessened by a full knowledge of the limits within which he is likely to agree with his *confrères* and beyond which there is at times ample room for conscientious difference of opinion. I need not enumerate and describe the many unsoundnesses in horses in regard to the presence or value of which all veterinary surgeons are likely to agree more or less closely, but I wish you to remember that these are so much in the majority that horse buyers may rest assured that the opinion of one experienced veterinary surgeon is almost sure to be corroborated by another in 95 per cent. of all cases that come within the sphere of commercial practice, provided facilities for examination are adequate. It will be generally admitted that the members of the veterinary profession have ever been found ready to give freely their services and advice to those societies whose propaganda aims at the perfecting of our breeds of horses, and here I may incidentally remark that we are proud to be associated with the members of horse societies in this estimable work. There is, unfortunatety, in the mind of a certain section of the public (the quasi-horsey) an idea that the veterinary profession is unstable in its opinions, that we readily differ in matters of unsoundness without apparent cause, and that in proportion as we differ we don't know our business. Much of this is no doubt due to the extreme publicity that is given to every case of horse litigation. Providers of copy know that, apart from any conflict of evidence that may appear, the record of a horse case interests the public almost as much as the proceedings of the Divorce Courts. Men who have never even handed a feed of oats to a horse find, in discussing the matter in the train, the office, or the restaurant, an opportunity for sandwiching in some embellished account of how, on a certain occasion, in some heroic way, their horsemanship (!) averted an appalling disaster. It has often struck me how prone many men, otherwise estimable, are to pose as horsemen, and deliberately contrive to leave a false impression on their hearers.

The Opinions of the Bench.

Another factor in the case is the often uncalled for remarks on veterinary evidence of many judges who, having no veterinary knowledge, can neither estimate the value of the evidence nor discern the difficulty of the problem which the veterinary surgeons have had to determine. They ought to remember that glass houses are not the peculiar property of veterinary surgeons, and that the establishment of the different Appeal Courts in the land is no testimonial to the unanimity of legal minds on their professional problems. I am not here, however, to blackguard any profession or calling, or to cast any doubt on the infinite wisdom of the Creator who gave to mankind finite minds only. But, you may ask, why is it that veterinary surgeons differ at all as to the soundness or unsoundness of an animal? With the horse before them, can these questions not be determined as confidently as you would decide whether a pane of glass be cracked? My answer is emphatically no! though, as I have already stated, almost all the difficulty can be settled at once beyond dispute. We have to remember that the examination of horses as to soundness is a highly individual affair, and that the veterinary surgeon, being only human (though the pro-

* Abstract of lecture delivered before the Glasgow and West of Scotland Agricultural Discussion Society.

fession is divine), is bound to confess that the subject must, in many of its phases, remain for ever an inexact science, affording, as it does, a wide field for disagreement, albeit the difference very often is one of degree only.

Uniformity of Opinion.

Many attempts have been made by our associations to draw up a set of rules to guide us collectively in giving opinions as to the soundness of horses. But, inasmuch as many of the problems are incapable of settlement by adamantine rules, these efforts have proved more or less abortive on every occasion. But some good has resulted, and we can confidently assert that to-day the opinions of the profession are more cohesive on many points than was the case even ten years ago. Whether the debatable ground will be much further curtailed I cannot say—no doubt it will—but you may depend we will leave no stone unturned that is likely to reveal a more perfect method of diagnosis. That real difficulties exist the records of many lawsuits abundantly testify, and, in seeking to deal with this question in a general way, I shall trust you not to construe my remarks as any attempt to suggest wherein the truth lay in any given case. My objective is to essay such a demonstration of the problem as may cause you to ponder before arriving at an uncharitable conclusion. I have no doubt many of you have remarked what is unquestionably true, that horses presenting any slight abnormality or irregularity in the structure of the limbs are more likely to be rejected by the young than by the experienced practitioner. Men of fifty or sixty years of age will readily confess that many horses which they condemned twenty or thirty years ago would, if examined by them to-day, get a certificate of soundness. In his anxiety to err on the safe side, the young man is apt to reject a horse for trivial matters, while the natural effect of experience is to broaden a man's views, and make him more tolerant of many conditions of bones and joints which do not conform to his preconceived ideas of what constituted a normal limb, and conversely, it is equally true that as a man gathers experience he becomes more and more careful to detect the slightest sign of those hereditary and progressive nervous diseases that are but too common in the high quality animal of to-day. Bnt no matter what the extent of our practical experience may be, every examination presents its own difficulties to the examiner, and yields much room for thought, for he has to be as careful not to reject a sound as he should be not to pass an unsound horse, and it is my experience, generally speaking, that more sound horses are condemned for imaginary diseases than are unsound ones passed as sound. I need not tell you that, while any qualified veterinary surgeon may be expected to advise satisfactorily in *re* the soundness of any breed of horse, it is the case that we all tend to specialise, more or or less, in the classes or breeds of animals that predominate in the district where we are located. We simultaneously become more adept in the detection of abnormalities specially prone to impair their utility, and more tolerant of many defects which, if occurring in a different purpose animal, would be of serious import.

The Light-legged Breeds.

No doubt the man whose experience is confined to the lighter breedr has a difficulty in accepting as from disease the well-developed wrists of some Shire and Clydesdale horses. Per contra, and probably to a lesser extent, men accustomed to examine the heavier breeds find some trouble in deciding questions of soundness in Hunters. Veterinary surgeons naturally frame their attitude to their experience, and it is because experiences differ that we find the most reputable practitioners holding contrary opinions in certain cases. They are bound to give in Court a conscientious account of their views, unbiassed by the knowledge that there will be produced in the case evidence of equally experienced men who are at variance with them. And probably, since it is the rule for men to differ in every walk of life, it is not a bad thing that it takes more than one type of mind to make up the veterinary world.

The Young Vet. *v.* The Old.

No doubt it is true of some veterinary surgeons, as of people in other walks in life, that their motto is: "First get on, then get honour, and, finally, get honest." If it perplexes you that a new graduate should reject a horse that may pass muster with an older practitioner, let us consider for a moment his recent environment. You will readily believe that in order to be able to comprehend or define disease, he must first of all understand the problem of health, and so, during his collegiate course, he is primarily taught the normal structure and functions of every part of the animal economy. Herein lies a considerable part of his advantage over the horsey layman. When certified proficient in this branch, he learns next all about the diseases that affect the various structures. Concurrently, he is taught the practical work of examining a considerable variety of horses as to soundness. To the performance of this duty he carries in his mind's eye that picture of the perfectly normal structure which, as a hearer and observer, his individuality has conceived, and even here the personal equation obtrudes itself, though not so glaringly as obtains occasionally in the matter of real or apparent abnormality of structure. As he passes each part of the frame under review, paying equal regard to structure and function, he has need for a clear head, an eagle's eye, and a lady's hand, for he is expected to observe and take note of everything unusual, and if he fails to remark the slightest unsoundness, he is liable to lose marks. The anxiety to be thorough causes him in the first few years of his professional career to "crab" horses which his clients had set their hearts on, and it is only when he finds that several of these animals have subsequently been recommended by more experienced practitioners, with the best results, that the full truth and wisdom of his teacher's apparent inconsistency dawn on him with conviction. When we attempt to unravel the seeming mystery of experienced men differing in matters of soundness, we discern various factors operating according to the nature of the point at issue. Under the head "Existence or Non-existence of Defects," if we exclude "whistling" and "spavin" in light foots, "ringbone" and "sidebone" in heavy breeds, and "shivering" and "stringhalt" in both, there remain few points in which we are likely to oppose each other. Disputes as to shivering, stringhalt, and a few lamenesses are almost invariably due to the fact that these are in many instances intermittent in character, so that a man may conscientiously pass to-day the animal which he himself or another would condemn without hesitation to-morrow. This feature of the early stages of these defects demonstrates how utterly inadequate are the facilities afforded for this important veterinary duty in the saleyard, the fair, or the showyard premises. We have repeatedly, when unable to make an animal reproduce what seemed a positive suspicion of nervous trouble, had to keep it on our premises for some days before we could definitely decide. Important as this matter is in valuable animals of any breed, it is momentous in the case of young, high-quality Clydesdales intended for stud purposes, and I am sure many of you breeders can recall your feelings of disappointment when one morning your discovery of the first evidence of the insidious hereditary taint blasted the cherished prospects you held out for one of your hopefuls. To those of you who have had this unfortunate experience, I commit the task of outlining, if you have a mind, the diplomacy that is likely to succeed in excusing the absence of the favourite from the show-

yard—how the progressive monster, sometimes eluding your most alert vision for a day or two, seemed all the more evident when it did reappear, and if you care to supply statistics indicating the period of time that elapsed before the defect was so pronounced as to be always detectable, you will materially confirm or add to our knowledge of shivering and stringhalt.

Nervous Diseases.

It may be due to my ignorance, but I confess that I have often had the greatest difficulty in differentiating in overgrown young animals between shivering and awkwardness in backing, and between peculiarity of action and lameness. Particularly worrying to me have been three cases in Hackneys and twice as many in two-year-old Clydesdales. In all of these one could discern, in the walk only, either on the straight or in the first effort to make a turning movement, a very occasional though scarcely appreciable abduction of one hind limb, causing the foot to describe an arc of a circle as the step was taken. In none of these cases could anything abnormal be detected in the trot or in turning when the animal was on the *qui vive*. Probably you would have had no difficulty in deciding that each of these animals was the victim of incipient stringhalt or shivering, the want of co-ordination in muscular movement being necessarily due to an exaggerated or impaired nervous impulse. If so, the subsequent history would have proved you to be right in three, but wrong in at least four cases. In these latter, the awkward peculiarity of gait was undoubtedly due to a very slight displacement of the patella (the small bone in front of the stifle), causing an instantaneous difficulty in the flexion of that joint, with the result that the step was performed with a somewhat jerky outward swing of the limb. You are doubtless aware that in young animals the features of the bones are incomplete—the ridges and grooves that make in the mature animal a safe and firm joint, capable of giving straight flexion under all conditions, are not fully developed. And when we consider that this small bone is not held in its position entirely by firm ligaments, but is much indebted to the muscles attached to it above, we need not wonder that in growing animals its position, under certain circumstances, is sufficiently insecure to cause an awkwardness in gait that simulates almost exactly the first stage of stringhalt or shivering. These are the cases that kill dogmatism, and breed caution and charity in the mind of the practitioner. And when we come to a consideration of spavin and ringbone we find that in an occasional case it is extremely difficult to say what is soundness or unsoundness, provided the animal is moving sound and has free and full action of the joints. Conditions the result of disease in one animal so closely simulate what is but a desirable development of the bones in another, and *vice versa*, that it is not to be wondered at that men arrive at different conclusions, and that no amount of discussion can settle the matter.

Ringbone, Spavin, and Sidebone.

The starting point at which to condemn for ringbone, spavin, or sidebone is difficult to settle, being entirely a matter of opinion. The factors in your personality that lead you straight to the truth in the case of to-day will lead you to a wrong decision in the case of to-morrow, though at the time you don't think so, and it is a blessing that these "border-line" cases are not being sold and bought every day between men of litigious temperament. No doubt, where there is any decided difference in two hocks or two pasterns, we must condemn, but if the difference is only just appreciable or doubtful (and we know that the mass of hair and very often thickened skin at the coronets are baffling to our tactile sense), the horse should have the benefit of the doubt, if going sound. Thus we see that human experience at times proves a fickle jade, and "it ill becomes even the best of us" to decry the man who takes his stand on the other side of the hedge. In such controversial cases, hocks are either rough or spavined, and pasterns either coarse or ringboned, according to the individual opinion of the examiner, and when a case of this kind goes to Court, the conflict continues, each man strengthening his own edifice in the manner of a politician. A timeous post mortem discloses more truth than a seven days' lawsuit, but we are seldom afforded the opportunity of deciding the issue in this way. But surely many of these disputed cases could be settled with much less expense than obtains at present. When it happens that several men of equal professional calibre are at loggerheads, I would suggest to horsemen with a bent for law that instead of having recourse to the Law Courts, where the issue is as uncertain as the toss of a penny, they should consider the propriety of mutually agreeing to appoint three experienced and neutral veterinary surgeons, who, after hearing the available evidence, could make a personal examination of the animal, and settle the matter. This would be equally conducive to truth, and economical financially to the interested parties. Failing this, I think the money squandered in expensive litigation could be more wisely utilised in putting the animal down and committing the issue to the tribunal of three neutral veterinary surgeons, who could absolutely decide the truth with the open book of the bare bones in front of them. In the case of "sidebones," the difficulty arises only when a horse has rather rigid cartilages, and the ossification, or turning of the cartilage into bone, is not complete. Although very common in our mature draught animals, sidebones are not of great economical significance; they are of more importance—though less often met with—in hunters, hacks, and harness horses. It is surprising how many cart horses have sidebone—something approaching 50 per cent.—but in seven or eight-year-old animals this seldom produces lameness if unaccompanied by weak feet, and it is rarely met in young, unbroken animals. In Ireland and other hunting countries the bone of contention is "whistler or not," and this is due to the fact, so often verified, that the sound animal of to-day may be a whistler to-morrow, and so one man may pass as "sound of wind" the horse which a novice would reject a few days later. There is some controversy as to the amount of latitude which should be extended to fat stallions that "grunt" more or less to the stick. Those who put little stress on this are esteemed by the men who own these animals, but our experience is that the tolerance of many owners varies with the needs of their animals year by year, and they are to be likened to a not unworthy client of mine—a show official—who, trusting to a shortness of memory on my part as measurer, would counsel me one year that an inch or two was neither here nor there, and that big classes were the objective of the committee, while the next year, when it transpired that his own goods were likely to pass the standard, he would expatiate on the need for paying strict regard to my duty as measurer. "Grunting" is by no means a positive sign of unsound wind, and the great majority of big, fat horses that grunt to the stick are quite free from disease of the larynx. Many horses grunt from fear or habit when in perfect health, and the sound is often emitted by animals suffering from painful chest complaints. And experience has shown that it is foolishness to think that you can feed large horses to fat condition with heavy, bulky food and not have a great number of them become grunters.

Though grunting is always to be looked on with suspicion, because the roarer or whistler almost invariably grunts, and though the various gradations are somewhat difficult to estimate, we usually find that what is known as a "bull grunter" proves to be a roarer. Every animal that grunts to the stick should be further

tested for his wind, and if he passes successfully the orthodox tests for roaring, he may safely be considered as sound of wind. And, since fatness is no sign of condition or tone, but usually the reverse, we have to be careful not to confuse the breathlessness and louder respiration that result from the enforced exercise of any test with the signs of roaring or other unsoundnesses of the respiratory organs. When a veterinary surgeon finds that a horse otherwise sound makes a noise to the stick, it is sufficient for him to mention the fact for his own protection. We have always to bear in mind that either grunting or broken wind may develop quite suddenly.

Bog Spavin or Thoroughpin.

When we come to consider bog spavin and thoroughpin, we find in some Clydesdales that the hereditary predisposition to these conditions is strongly marked. A degree of puffiness in the well-shaped hocks of a heavy entire is to be excused, since it is very often the result of the severe stress to which these joints are put when a heavy animal is serving. But there is some ground for controversy when we encounter young animals, excellent in every other detail, possessed of those extremely straight hocks that are bulging and sometimes fleshy ere yet they have begun to do service. This faulty conformation is very undesirable, and we would readily ban any animal whose unduly straight hocks were showing such evidence of wear as would lead to the conclusion that they would soon fail him. But though the veterinary inspector cannot condemn till the hocks show evidence of disease, we are often surprised that judges, in making their awards, do not deduct more marks for such faulty conformation.

Heredity.

In considering the question of the "heredity of unsoundness," we have always to remember the dual parentage. Soundness is important both in sire and dam, but since he may beget fifty foals per annum, while she produces only one, his individual influence on our future horse population is proportionately greater, but the soundness of the mare is none the less necessary, seeing that her get of to-day may be the stud horse of to-morrow. I have often been surprised at the rush that is made occasionally by farmers to secure the service for their brood mare of the flashy two or three-year-old that has gained the honours of the day. Compared with the use of the aged, sound, and proved stallion who may have lost the bloom and agility of youth, the investment is distinctly speculative. Commend us to the use of the old horse whose proclivity for begetting sound, good type animals has become, as it were, standardised. In the dependence which may be placed on him to beget what you desire, he is comparable to the patent drugs now produced by manufacturing chemists which have had their therapeutic action tested and standardised by actual experiment, thus materially increasing their reliability. In the case of the sire that has not lived long enough to be so standardised, we should demand more than his individual freedom from recognisable hereditary disease. If he is to assist in the war against unsoundness, he must be the product of sound stock, and the weakness of much of the present-day endeavour to improve our stock lies in our want of jurisdiction over the mother, or it may be the father or grandparents of the animal in question. Indeed, the sound horse of unsound parentage is much less desirable as a sire than the unsound animal begot of a sound race, for the latter may conceivably produce the sounder stock. It is the blood that tells. Much depends on the immediate ancestors, and we have occasionally seen how a sire exceeding in bone and stature any of his race begat animals of inferior size, and we have seen the pigmy of a line produce gets worthy of his bigger kindred. Indeed, the sport of any genealogical tree may be fairly depended on to reproduce animals worthy of his parents, unless he is mated to a mare that is potent to neutralise the outstanding features of his race. And, since the Stud-Book, from the standpoint of hereditary unsoundness, contains many undesirables, I leave it to you to decide whether it would not be advantageous and practicable to found a new and emancipated register of Clydesdales, free from the taint of hereditary unsoundness, so far as this object is possible to the wit and co-operation of mere men.

The Export Trade.

In these latter days, when so many of our choicest Clydesdales are bought by Colonials and foreigners, who, generally speaking and so far as they know, accept only those that are sound, leaving the rejected to swell the proportion of unsound animals in these isles, need we wonder why there is not a sufficiency of sound animals to go round those firms that are willing to pay a good price for them, and that the veterinary surgeon's duty is not confined within the narrow limits of the question sound or unsound, but embraces in the choice of even high-priced animals a discrimination between unsoundness of different sorts, according to the purpose for which the animals are intended. This state of the market, while it offers a broader sphere of usefulness for the advising veterinary surgeon, is regrettable on account of the loss of value in horse flesh which it represents. Horse-breeders ought to discern in the yearly increasing utility, durability, and dependence to be placed in motor vechicles their strongest incentive to breed from sound animals of sound pedigree only, so as to reduce to a minimum the number of horses that, in the user's hands, become prematurely unfit from hereditary unsoundness. And, besides endeavouring to eradicate hereditary disease, they should aim at producing a class of animals likely to wear well in hard city work.

Mark the progress of events in our Colonies. The horse that has not a certificate of soundness there is banned both in the showyard and the market. And in their choice of the Shire to the Clydesdale in our Southern Colonies, we see an example of a progressive movement which will sooner or later call a halt to our cultivation in the Clydesdale of those points which considerably constitute the fancy, and which, though difficult to produce, often count for little in the utility of an animal.

Finally, gentlemen, let me say that your patience has been admirable. I hope you will have a good discussion, and if you make it plain that I have dealt with the subject in a defective manner, please remember that it is not the theme I would voluntarily have chosen to address you on. My main endeavour has been to present you with an unvarnished tale of the almost insuperable difficulties that at times confront us in the work of examining horses as to soundness, in the hope that a fuller understanding may breed in your minds that charity that forbids scathful remarks, and that there may be an increase of your faith in us as a body of men who, whatever our limitations are, are conscientiously endeavouring to read clearly our allotted portion of Nature's infinite book of secrecy.

[Mr. Begg had a cordial reception, and was loudly applauded at the termination of his paper.]

Discussion.

Mr. John Findlay, Springhill, Baillieston, said there was one thing Mr. Begg had impressed upon him, and that was the difficulties which beset veterinary surgeons in trying to see whether a horse was sound or not. Mr. Begg had admitted that veterinary surgeons could make mistakes, and he seemed to indicate that it would only be after a veterinary surgeon had come to the age of forty years that he would be of any real practical

use in deciding whether a horse was fit to pass the test or not. That, Mr. Findlay thought, was a little hard on the young veterinary surgeons. They could not all wait till they were forty years of age before beginning to vet. horses. It was many years since animals were vetted in the show rings. The Highland and Agricultural Society had taken it up years ago, but it did not work well, and only brought confusion, and consequently the society reverted to the old system of securing the best judges. With all deference to veterinary surgeons, he thought competent farmers who often acted as judges were entitled to very great credit for the high position the Clydesdale occupied for soundness. (Applause).

Mr. WILLIAM ROBB, F.R.C.V.S., Glasgow, thought it was not a question for the veterinary surgeons at all, but for the breeders and users of Clydesdale stallions. It lay with them as to whether there should be examination or not. According to some it was not necessary, while according to others it ought to have been done long ago. Speaking as a veterinary surgeon, he said the longer they did without examination it only brought in more grist to the mill. (Laughter and applause.) From a financial and business point of view, it lay with the breeders. If they decided to have examination, he asked who was going to do it? They read the works of eminent writers, so they should employ eminent veterinary surgeons. Mr. Findlay referred to the judges' opinion. The examination was largely limited to the hoof-head, but occasionally they found that a horse had sidebone, and they seldom got beyond that. Judges should judge type only, and if there were to be examination, let it be all round. Whether a veterinary surgeon was the best party to carry out that was a matter of opinion. If they waited till the veterinary surgeon was perfect they should give it up. That official was only human, and some had escaped jail in their time, while others had been jailed. (Laughter.) Taking the case of the Shire horse, he remarked breeders of that class of horses had said that vetting had been of wonderful benefit in eradicating unsoundness in horses. Proceeding, he said the greatest stumbling-block to many of the stallion owners was the question of roaring. It was expected that once a stallion had been fed he must roar. That was not correct. He (Mr. Robb) had passed a nine-year-old after a severe test—not during his season, but when he was standing idle—as absolutely sound of wind, while, again, he had condemned a three-year-old without much provocation. He agreed with Mr. Begg in the difficulties of show-yard examination. They were more likely to make errors there of omission than commission. In conclusion, he said he could mention the names of premium horses which were shiverers, and others which had sidebones, and the result had been disastrous to all who used them.

Mr. JAMES SNODGRASS, Millig, Helensburgh, thought all stud horses should be examined. The poacher was a great danger to be avoided. Horses which were not good enough to be used as stud horses at home were sent to poach in the country districts, and very often they were unsound. They usually got a good number of mares, and the produce were all unsound. It was very hard on the man who bought a young horse, and, after keeping him for a year or two, discovered that he was developing "hackney" action. (Laughter.) All stallions should be examined and passed as sound.

Mr. DAVID ALLAN, V.S., Clarkston, said the matter of unsoundness had been a very great question all along, but there was difficulty in defining soundness from unsoundness. A horse might have an abnormal formation which would be put down as a disease. That was not fair, and unless horses had a disease they ought not to be condemned. In hereditary unsoundness they had a most difficult thing to contend with. He thought breeders should be very particular in breeding from both mares and sires which were free from hereditary disease. Veterinary surgeons were often blamed for passing horses as sound where there was disease. It was a very wise arrangement, he thought, to have all horses examined which were competing for premium prizes. Concluding, he said there were plenty of horses condemned as shiverers whereas it was simply luxation of the patella, the small bone in front of the stifle.

Mr. JOSEPH ROUTLEDGE, 42 Grant Street, Glasgow, remarked that the great question of unsoundness had been brought lately to an acute stage on account of the diversity of opinions which existed amongst the highest authorities in the veterinary profession. The difficulty, of course, was with the aged horse. The question was whether a certificate of soundness should be given to a three-year-old or four-year old horse, and then, when six years of age, to give him a fresh certificate for life. Breeders and farmers ought to take up the matter seriously. The advice given in the lecture as to how breeders should choose their sires would do a great deal to eradicate the question of unsoundess.

Mr. Arch. MacNeilage, hon. sec., thought that Mr. Begg's lecture was largely an apologia for the veterinary surgeons. He did not think such a thing was necessary, but those who read the evidence in the recent Dumfries filly case might have arrived at the conclusion that some kind of apology for the profession was required. After all, veterinary surgeons were like their brethren in the medical profession. He would like to ask even the most confirmed unbeliever in the veterinary surgeon's diagnosis if he would be prepared, in the case of critical illness of a human subject closely related to him, to adopt the principles which he advocated in regard to disease amongst animals. Medical men often gave contrary opinions regarding diseases. Under these circumstances, when a member of a family was seriously ill, would they expect that the mother, who was the best experienced in the house, was better fitted to give advice on the subject than two or three men who had made a special study of the disease? He was sure no one would adopt such an attitude. Mr. Findlay had argued that judges in the showyard were quite competent to decide whether animals were sound or otherwise for all practical purposes. He was prepared to admit that there were many men who acted as judges who were well qualified to express opinions on the matter of practicrl unsoundness. In over thirty years' experience and observation, reporting in the show ring, he had heard the excuse advanced time and again, when animals which were unsound were promoted to the highest places, that the judges were not veterinary surgeons, and that they were not there to judge soundness, but type. That being so, who was to judge soundness? There was only one qualified judge, and that was the man in the profession trained for that purpose. Reference had been made to the fact that the Clydesdale breed was exceptionally sound. He admitted that, but on what data was he to base his claim if challenged to prove it? If a man made that claim on behalf of the Shire horse he showed figures to the effect for thirty-four years. These figures could be allowed to speak for themselves. He had data based on ascertained facts covering a period of thirty-four years. As regards the Clydesdale, they had no such data. They had only the examinations at the Royal of the comparatively few Clydesdales shown there, and the examination for the Cawdor Cups during the past three or four years. He was pleased to be able to say, on the authority of Principal M'Call, that on Tuesday seventeen stallions were examined, and only one failed to pass. Except for that, he had no data to go upon in support of the contention that the Clydesdale was an exceptionally sound breed. If they were to stand against the world and battle with the other breeds, they must have inspection. The classification of the horses at the London Shire Show was a masterpiece. There were

classes provided for yearlings, two-year-olds, three-year-olds, four-year-olds, and then from five to nine, and next a class for stallions ten years old and upwards, and those in the last named class were subjected to the same test as in the younger classes. The whole matter was a breeder's question, and not a horse owner's or a veterinary surgeon's question. The breeder was the man who paid for the use of unsound stallions, and it was the breeder who lost the money when the produce were unfit. He had never known judges in the showyard, with one exception only, put into effect their skill in judging horses for soundness. The exception was at the Inverness Highland Show in 1883, when three judges placed what was admittedly the best horse in the class in the corner of the ring, and never gave it a ticket. On another occasion, at Perth in 1887, the judges put a horse which was temporarily lame out of the awards. Although only temporarily, it was lame, which was enough for them. A year ago on Tuesday, when inspection was in progress in the Scotstoun showyard, the late Mr. David Riddell had said to the inspectors, in the hearing of a company of which he (the speaker) was one—"Gang on with your work, men, it is a step in the right direction." He thought that testimony of a stallion owner with fully fifty years' experience was worthy of being put on record. (Applause).

The CHAIRMAN, in moving a vote of thanks to the lecturer, advised them to remember their customers, and always send their best goods to the market, or they would lose their customers.

Mr. BEGG, in reply, said that Mr. Findlay had scarcely caught the actual meaning of his phrase. He did not wish to decry the ability of the young practitioner, but he was only trying to show that the capability of a veterinary surgeon was increased through long practice, as his views were broadened. Of course, age did not always mean experience, because a young man might be quite experienced after a year or two's practice.—*The Scottish Farmer.*

PHYSIOLOGY AS A FUNDAMENTAL IN VETERINARY EDUCATION.*

Education, like nature, should be orderly—a development from the simple to the complex. The development of the morphologically simple cell into the complex adult animal organism proceeds in an orderly way. The cell is the morphological unit and the mature animal consists of innumerable units, some of which have undergone a very great modification as to form. The cell cannot be accepted as the physiological unit. What is apparently simple as to form is not necessarily simple as to function. The activities of the cell are but partially understood. The physiological unit, around which centre these activities, is, like the atom of chemistry, invisible, but its power is unquestioned. Function is concealed in structure. Function is not often revealed without search and, indeed, research. In some instances it may be so superficial as to be easily recognised: in others it may lie so deeply that the keenest intellect is baffled in demonstrating its presence in a satisfactory manner.

The relation of Physiology to the biological sciences is most intimate. It is not a question of independence, but of interdependence. Many more or less plausible arguments may be advanced that one particular science may have a greater relative value than others. Chemistry and physics are concerned with matter and we ordinarily associate them with unorganised bodies. Physiology is restricted to *living* matter, or organised bodies. We cannot consider inorganic material in physiological terms. Yet chemistry and physics are intricately involved in physiological processes and the question arises, perhaps, in the minds of some if, under the proper combination of conditions and of enviroment, life is not evolved from chemical reactions. Chemical action is constantly occurring in living tissue. Does it control the living tissue or does the living tissue control it? In the processes of filtration, diffusion and osmosis, physics occupies a relationship scarcely less intimate than chemistry. Solutions of crystallizable substances of unequal concentratioa separated by an animal membrane will ultimately become uniform. Physics has demonstrated this. Is there any difference in the results if the animal membrane be living or dead? In some instances it has been shown that it does. Waymouth Reid introduced into the intestine of a living animal a certain amount of its own blood serum. The epithelial cells of the alimentary tract were therefore in contact on the one side with this blood serum and on the other with capillary vessels containing blood, the fluid of which had the same composition as the serum in the intestine. If the intestinal wall acted like an ordinary dead membrane there could be no passage of the serum from the intestine to the blood by diffusion or osmosis. It was found that the serum was rapidly absorbed. This could not be due to ordinary filtration because the pressure in the intestine was less than in the capillaries. The conclusion was reached that while known physical forces play a certain part in absorption, there remains an unexplained factor. Some, however, regard this unexplained factor as the living cell, and that because of its living condition two separate fluids of uniform composition were made to unite against pressure.

A somewhat similar example occurring in the kidney may be referred to. Urine contains a much higher percentage of urea than does the blood, but in spite of that the extremely weak solution of the urea in the blood gives up its urea to the more concentrated solution in the urine. Physical law will permit the passage of a substance from the stronger to the weaker solution, but not the reverse.

Co-operation is the key-note of physiology. In no other science, perhaps, do we have such striking examples. Since the time of Sir Charles Bell, physiologists have recognised the importance of the nervous system in co-ordinating and regulating the various bodily functions. In comparatively recent years the realisation has grown that the harmonious adjustment of the various tissues is not confined entirely to the numerous reflexes through the nervous system, but that there is in addition a regulation by chemical means through the blood and other fluids of the body. The development of our knowledge of the internal secretions led Brown-Sequard to the generalisation that every tissue in the body in the course of its normal function gave material to the blood which was of use in regulating the activity of other tissues. This idea has been supported by facts brought out in connection with the study of the ductless glands of the body. The generalisation of Brown-Sequard has been confirmed in a definite way by the investigations of Bayliss and Starling upon secretin. They have demonstrated that when hydrochloric acid is brought in contact with the epithelial cells of the duodenum a substance (secretin) is produced which passes into the blood and is carried to the pancreas and stimulates it to secrete the pancreatic juice. This is a definite example of a substance which, originating in one tissue, is of direct aid in the function of another tissue in a chemical way. Such a substance has been designated by Starling as a "hormone."

The epithelial cells of the duodenum co-operate in still another very striking manner. When the pancreatic juice is secreted its proteolytic enzyme is in the form of

* Presented at the meeting of the Association of Veterinary Faculties and Examining Boards of North America, at Toronto, Canada, Aug., 1911.

trypsinogen—an inert substance. As soon as it comes in contact with the duodenum. the trypsinogen is activated or converted into trypsin, which has the power of acting vigorously upon proteid material. The substance which causes this activation is known as enterokinase. It would thus appear that the duodenal cells are doubly co-operative in assisting other tissues in a chemical way. The secretin which they produce is comparable to an internal secretion, since it is turned into the blood and stimulates the pancreas to perform its function ; the enterokinase, on the other hand, is comparable to an external secretion, since it is turned into the intestinal cavity and thereby activates one of the important constituents of the pancreatic secretion.

An interesting co-operative cycle is apparently established around the duodenum. In the stomach, pepsinogen is secreted by certain cells in the gastric glands ; this presumably is activated to pepsin by the hydrochloric acid formed by another type of cell in the gastric glands. The gastric chyme with its hydrochloric acid, on reaching the duodenum, stimulates the production of secretin, which in turn stimulates the flow of the pancreatic juice. The pancreatic secretion on reaching the duodenum induces the production of enterokinase by which its trypsinogen is activated to trypsin.

Because of the considerable amount of carbohydrate in the diet, it might naturally be expected to find a vigorous diastatic enzyme in the saliva of the horse, if in any animal. Yet the saliva taken from the duct of the parotid gland is unable to convert a starch mixture into a reducing sugar except to a very limited extent and after a considerable period of time. Is there an absence of the diastatic enzyme, except such as may filter through to the secretion from the blood, or is there an inert ptyalinogen which meets its activator further down the tract and is there converted into the active ptyalin?

Other examples of co-operation may be mentioned in connection with the pituitary body of the brain, and the thyroid and suprarenal glands. Although not provided with ducts, an internal secretion is nevertheless formed which is turned into the blood and lymph and exerts an influence upon the other tissues of the body so important that if the glands become diseased or removed, serious or fatal consequences result.

One of the most interesting examples of an internal secretion which is not necessary to life but which yet profoundly affects the chemical changes occurring in the body is that of the ovaries. It has long been familiar to stockmen and others that the removal of the ovaries increases considerably the rapidity with which fat is laid on. According to the researches of Loewy and Richter, of Berlin, the explanation is that the ovaries produce a substance which hastens the oxidation of the tissues and the food. When this substance is injected under the skin of animals in which the ovaries have been removed, the tissue waste is markedly increased.

Since physiology is concerned with living matter and that alone, the border lines between it and other biological sciences must of necessity be indefinite and more or less overlapping. This is peculiarly true as to its relation with pathology, medicine and therapeutics. The chief function of the living tissues is change—metabolism. Changes of composition, form or even structure are pertinent to physiology if they occur in the living tissue. The activity of the tissues may be increased or decreased for a greater or less time and the conditions still remain within normal limits. There may be a lack of co-operation for a time without abnormal results. The dividing line between the normal and the abnormal is at the outset imperceptible. Bacteria are present in the normal body and are more or less concerned with the normal functions of the alimentary tract.

Physiology stands for co-operation, pathology deals with a disturbed co-operation. A tissue unduly excited will, in time, disturb the harmonious adjustment of certain other tissues, producing a chain of results which induces an abnormal or pathological effect upon the organism, as a whole, and medical science is invoked to alleviate the disturbed condition and to restore the normal adjustment. In other instances the hyper-excitability may be localized in a given tissue, as with a benignant tumour without apparent interference with the normal functions of the other parts. Pathology is physiology gone wrong and, although it has been emphasized before, it is well to emphasize it again : that to understand the abnormal, it is necessary to have as complete a knowledge as possible of the normal organism.

If it is the province of pathology to point out the differences between the normal and abnormal, it is the very important duty of medical science to attempt the restoration of the abnormal to the normal. If it is important for the surgeon to know thoroughly the form and structure of the tissues in order that abnormal or diseased parts may be removed with the hope of bringing about a normal condition again ; then is it equally important for the medical practitioner to know thoroughly the functions of the tissues and their system of co-operation, if he is to restore the diseased organism to its normal physiological standard. Therapeutics must be invoked with a knowledge of those agents which will stimulate the weakened parts to their normal tone, or which will soothe the overirritable or overexcited tissues to their natural calm. Without anatomy we may assume there could not be proper surgical procedure ; we may equally assume that without physiology there could not be satisfactory medical practise. Indeed, the practitioner's service is but an extended laboratory course in physiology.

Diseases are due to a disturbance of physiological co-operation either internally through the interrelationship of the different tissues, or externally from the introduction of material foreign to the organism. In veterinary practice there is perhaps no more striking example of disturbed co-operation than in azoturia. Why should renewed work after a day or two of idleness cause such a physiological upheaval in the horse as to make it necessary to record so large a percentage of fatalities? The answer will probably be found in the disturbed adjustment of the circulation, muscular and renal tissues, caused, perhaps, through chemical substances introduced through the digestive system and influenced more or less by external conditions. Why are other domesticated animals exempt from this affection? The hydrocephalic dummy, parturient paresis in cattle, and many other diseases when finally worked out may be found to be due to the production of some chemical substance developed in one tissue, which, circulating to other tissues, excites them directly or reflexly to such an extent that the whole adjustment is thrown into more or less disorder.

In the urine of man, more than a trace of indican is pathological. Why should the relatively large amount of this substance usually found in the urine of the horse be regarded as a normal condition?

In order to solve the problems of the normal as well as the abnormal, it would appear essential to work out the physiology of each species of the domesticated animal distinctly. While many of the conditions may be fundamental to all, there are some characters which are peculiar to each type. Physiology is not all internal ; external conditions must be reckoned with. Diet, habit and environment all contribute to the harmonious adjustment of the internal mechanism.

The practitioner should not be blamed too severely for a certain amount of empiricism. Physiology has not yet solved all of its problems, and until the solution is forthcoming a strictly rational treatment of all diseases is impossible.

UMI

If my meaning has been clearly expressed, it should be apparent that physiology is a *living* science and is concerned with the manifestations of life; its action is co-operative, not only to the tissues in an individual organism, but in a broader sense to the other biological sciences; it is fundamental especially to pathology and medicine, and, co-operating with them, seeks to conserve the general health of animals and man.

PIERRE A. FISH.

Cornell University.

LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

The fiftieth annual meeting was held at the Grand Hotel, Manchester, on Feb. 16th. The President, J. W. Brittlebank, Esq., in the chair.

The minutes of the last annual meeting were taken as read, on the proposition of Mr. Taylor, seconded by Mr. Munro.

Election of Members. Messrs. W. H. BRIDGE, Bolton; E. R. EDWARDS, Board of Agriculture; A. RICHARDSON, Liverpool; J. SPREULL, Manchester; and H. A. TURNER, Manchester, were unanimously elected members of the Association on the proposition of Mr. Locke, seconded by Mr. Brittlebank.

Nominations. Mr. T. O. RICHARDSON. Tarporley, was nominated for membership by the President, as also was Mr. HEYES, Wigan, by Mr. Sumner.

Correspondence. The Secretary submitted a letter, dated Dec. 15th last, stating that a Congress arranged by the Société de Pathologie Comparée will be held in Paris in October. Fuller details are given on page 720 of the December issue of *The Journal of Meat and Milk Hygiene.*

A letter from Mr. Gofton, Hon. Sec. of the Organising Committee, N.V.A., under date of Jan. 20th. This contained a request as to the decision of the Lancashire V.M.A. in regard to affiliation with the N V.A. Also, in the event of the decision being favourable, as to the names of the representatives chosen in accordance with rule 36.

It was pointed out that the Society had passed a resolution approving of the scheme at their quarterly meeting of April 6th last.

Mr. WOODS formally moved that the Lancashire V.M.A. affiliate with the National Veterinary Association. Mr. Sumner seconded, and it was carried.

The selection of representatives was referred to the Council for consideration and report to next quarterly meeting.

Council Election of R.C.V.S. Mr. TAYLOR moved that Mr. Packman be the nominee. Mr. Lawson seconded, and it was carried.

Mr. LOCKE proposed that the Lancashire V.M.A. unite with the Yorkshire, Eastern Counties, and Liverpool Societies in the forthcoming election. This was seconded by Mr. Pillers and carried.

Balance Sheet. Mr. STENT submitted the balance sheet for the year 1911. This had already been printed and circulated to members. It showed a balance of £11, the membership remaining about the same.

The PRESIDENT proposed, and Mr. Lawson seconded, that the balance sheet be adopted. Carried.

Mr. LOCKE drew attention to the number of members in arrear, and moved that the matter be referred to the Council. Mr. Lawson seconded, and it was adopted.

Alteration to Rule 3. In the absence of Mr. Lloyd, Mr. Locke proposed an alteration to rule 3 in regard to the date of the first quarterly meeting, viz., "First Thursday in April to read third Thursday in March." Mr. Wolstenholme seconded the proposal, and it was carried.

Mr. LOCKE announced that he had received promises of twenty guineas towards the entertainment fund in connection with the visit of the N.V.A. to Manchester in July next. He appealed to members for promise of support.

Mr. LAWSON reminded the meeting of the National Congress to be held in London in 1914, and the necessity for their Association doing its utmost to assist in the success of that Congress.

The PRESIDENT said he thought it could be taken for granted that that would be done. He promised to bring the matter before the Council.

PRESIDENTIAL ADDRESS.

Mr. J. W. BRITTLEBANK, M.R.C.V.S., Manchester.

Gentlemen,—May I first of all extend to you all my very sincere thanks for again conferring upon me the honour of electing me your President for the coming year, particularly do I appreciate the distinction when I look back upon the year which is past and remember the many courtesies and kindnesses which I have received, and, I need scarcely add, the unswerving loyalty of you all.

I do not propose to inflict upon you anything in the way of a lengthy address; I do not think it can be expected of me; but I should like to briefly refer to one or two matters which are of interest to us.

In the first place the National Veterinary Association have accepted the invitation which you extended to them to come to Lancashire; and it is now up to us to do all we can, collectively and individually, to make their visit a memorable one.

Now that the amalgamation of the Societies is an accomplished fact we may hope that the common interests for the welfare of the profession will in no way suffer. I believe that the amalgamation cannot help but become a powerful factor in advancing the future of the profession, whether it be in a political sense, in which direction I am convinced that we have at last an opportunity of bringing our College motto, *Vis unita fortior*, into actual practice, or in the scientific sense. The example which the unity of the medical profession has recently set us is surely some indication of the great power which a profession can exercise in bringing pressure to bear, so that they may secure those rights to which they are entitled.

I do not for an instant wish to suggest such an organisation should be at any time made the medium of promoting discord and bad citizenship. But I am perfectly satisfied in my own mind that we as a profession have occupied quite long enough the subsidiary place in which we find ourselves partly, no doubt, due to our own fault—and that the time is not far distant when we should be able to secure those positions to which we have a right as a professional body.

In the scientific world also there are vast possibilities open to us, the field of research is ever calling, and we can only hope that the advance in the scientific history of veterinary medicine will be even more marked in the next fifty years than in the half century which is past.

I have purposely referred in the previous paragraph to the half-century, not with the idea of bringing before you the fact that this is the 50th year of existence of the Lancashire Veterinary Medical Association or that the progress of veterinary science commenced at the inception of this Society, but I do claim that societies such as ours have played no mean part in the advancement which has been made in our knowledge of the pathology and prevention, and, shall I add, the treatment of disease in the lower animals. These periodical meetings have caused many exchanges of views, have been the avenues through which new ideas occurred, petty jealousies have been dissipated, and so they have helped to consolidate

the profession, and have served their purpose manfully through the years which are past. The future we may safely leave to itself, having one solid purpose before us which can be briefly summarised into the one word, Progress.

I regret deeply the delay, due, I think, to the unnecessary interference of a minority of our profession in the passage of the Bill through Parliament. All legislation in the past has shown that it is quite impossible to devise measures which will satisfy everyone, and that it is the minority who must give way; but surely in our case it was not very difficult for any man who ever pretended to have the higher interests of his calling at heart to see that money was, and is, urgently needed, if the Royal College of Veterinary Surgeons is to be preserved as a licensing and disciplinary body, and the encroachment of other educational bodies are to be kept at bay.

As is known to many of you, the International Veterinary Congress is to be held in London in 1914, and a considerable sum of money will be required in order to extend toward those who come from over the seas that hospitality which has been for centuries a source of pride to us as a nation.

That the organisation will lack nothing we are assured, for we have Sir John McFadyean at the head, and I do hope that he will have no reason to say that we as a profession have fallen short in extending to him that support in carrying this Congress to a successful issue, both scientifically and socially, which it is his right as the leader to expect.

I may be excused for referring briefly to the field of veterinary work in which I am engaged as one before which there are vast possibilities for our profession. I venture to prophesy that the time will come when the Veterinary State Officer will become just as essential a portion of the preventive medicine service as the Medical Officer of Health is to-day, and I feel sure that there is no need for much of the pessimism evident with regard to our future. The graduates of the future will find many avenues opening to them, and those responsible for the education of the embryo veterinarian will do well to bear this in mind, and to provide accordingly.

I must thank our Secretary, Mr. Locke, for his kindness to me during the year which is past, and can only say that with the same measure of support extended to us during the coming session we hope to carry even higher the prosperity of the Lancashire Veterinary Medical Association.

Mr. LAWSON proposed a vote of thanks to the President for his address.

Mr. MCKENNA, in seconding, said the coming year would be one of great interest to the Lancashire V.M.A., and very many duties would devolve upon the President.

The PRESIDENT thanked the meeting, and said that with the help of the members the Society would in no way be disgraced in the coming year.

THE JUBILEE DINNER.

The attendance included the President, Messrs Garnett, Lawson, Burndred, Noar, Munro, McKinna, Pillers, Stent, Taylor, Wolstenholme, Woods, Priestner, Whitehead, Turner, Sumner, Ingram, Michaelis and Locke.

The guests of the evening were Aldermen Turnbull and Dixon, Councillors Kay and Jones (Manchester City Council), Prof. Delépine, Dr. Sergeant, Dr. Dearden, Dr. Arnold, Dr. Cryer, Dr. Rothwell, Major Stonier, Major Mason, Messrs. Clarkson, Heap, Roberts, Albinson, Haughton, Weir, Cantrill, Mallinson, Cecil Taylor, H. Sumner, junr., Wadsworth and White.

Apologies for absence were received from Messrs. Abson, Share-Jones, Packman, Faulkner, Hughes, Bartrum.

The PRESIDENT, in giving the toast "The King," thought he need say little, except to say that all were glad to welcome his Majesty safely back again. The toast was given with musical honours.

The PRESIDENT also gave the toast to "The Queen, Queen Alexandra, H.R.H. the Prince of Wales and the other members of the Royal Family."

"The Imperial Forces." Mr. STENT said that without doubt the most important branch was the Navy, our first and foremost line of defence. He believed it to be the most powerful this world had ever known. But even the best of ships are of little use unless you have the right men in them, and in this respect we had the finest set of men of any nation. It was difficult for a civilian to speak of the condition of affairs in the Army, but he was inclined to agree with Lord Roberts, that some form of compulsory service is necessary, if only for the physical development of the nation. These questions should be non-political, and to his mind it was a scandal to be otherwise. He had great hopes of the Boy-scout movement, but had hesitancy in speaking of the Territorials.

Major A. W. MASON, in responding, said he had borne His Majesty's uniform since 1874. He agreed with Mr. Stent that our men in the Navy were the finest force in the world. The Army were small, but very good. As to the Territorials there was much difference of opinion, and a great deal of politics in regard to the force. The force certainly did not get enough money to equip itself properly, and the question of horse supply was a serious one. If mobilisation were required to-morrow it could not be done. He believed the Army Veterinary Corps to be pre-eminent, and also considered that the Boy scout movement would prove a useful adjunct to the higher branches of the forces.

Mr. WOLSTENHOLME proposed "The Medical Profession." He felt highly honoured that this important toast was given to him to propose, but regretted that Prof. Share-Jones was not present to fulfil the task as arranged. To his mind the medical profession is the highest calling that a human being can engage in. It is calculated and capable of bringing into activity the finest qualities that any man can possess. No man needs a greater quality of courage than the surgeon. No man needs a more supreme delicacy of touch than the surgeon, and really no man more needs—and in most cases they possess—the tender heart of a woman. He might say on behalf of his profession there is no section of the community of these islands that more reverences and admires the sister branch of their profession—the medical profession—than the veterinary profession. They knew something of the qualities necessary and had something of the ability to recognise those qualities when brought into play by the surgeon.

Casting the eye back, as he could, on the changes which had taken place in medical practice, he believed it to be remarkable. In his recollection the pigs of the district regaled themselves largely on poultices from patients in the Royal Infirmary of Manchester. In his time deaths from Erysipelas in some of the operating theatres of this country were alarming, and the deaths from Puerperal fever appalling.

He referred to the accuracy with which diagnosis could now be made. How many people, he asked, had been diagnosed to have pneumonia or inflammation of the cerebellum when all the time they had typhoid fever. There need be no mistake about typhoid fever to-day. Similarly with the diagnosis of diphtheria. He referred to the late Mr. Bradley, who used to do an amputation of the thigh and finish off in half-an-hour. The surgeon is now no longer seeking the minimum time in which to do an operation, but is seeking and attaining such a percentage of recoveries that the surgeon of those days never dreamt of. The first great link in the surgery of

to-day passed many years ago. The brilliant surgical mind that brought antiseptic surgery to poor suffering humanity has just passed away. The results obtained by this have been marvels of science. The surgeon has added many years to the life of the community, but far beyond the advantage of years, surgery has decreased the amount of physical pain in an infinite degree. He was, he said, in love with his profession, but if he had the opportunity to exchange he would become a surgeon.

The veterinary profession as a whole was languishing, so his town *confrères* said, but he had always been an optimist. What are wanted are highly trained veterinary surgeons doing original work for the alleviation and obliteration of diseases in animals, and also with the higher object of helping the surgeon to solve many problems which still present themselves in human medicine.

In the public health service even a greater change, if possible, has come over these islands. He looked forward to an era of greater change when the lives of the workers and their health—their only stock-in-trade—will be better safeguarded, more carefully looked after and preserved, and that by the State, than it ever has been done.

Prof. DELEPINE, in response, said it was gratifying to hear words of appreciation of the medical profession at a time of so much uncertainty as to their position. There is no doubt that the strife now taking place between some part of the State and the medical profession must be one of great interest to the profession.

The veterinary profession is a sister profession indeed, and he hoped that in the future they would both work still more in unison. It is difficult in the distribution of official duties to always do what is right at the beginning, but as matters progress both professions would find their right places.

His profession had been praised for the progress it had made in regard to surgery, but they aimed at something better than that, and that is to prevent the need for operations. This appeared suicidal, but the field of preventive medicine will become more and more important.

"The City of Manchester." Mr. WOODS said that whilst London was nominally the capital of England, Manchester was the capital of the world so far as cotton was concerned. No doubt the burgesses grumbled from time to time about the high rates, and he often thought that the gentlemen who gave their services free and did very onerous work often got more kicks than pence. The improvement in sanitation, and the consequent improvement in the health of the country was equal to the whole of the rates. It was not so much a question of how much in the pound the rates are, but what is the ability to pay, and that was what they had in Manchester. He coupled with the toast the names of four very respected members of the Manchester City Council, regarding whom he had heard many flattering things.

Alderman DIXON wished they had more persons in Manchester in the same mind as Mr. Woods in regard to the spending of the rates. Speaking as Chairman of the Cleansing Committee he claimed that the cleansing of the City was second to none in the country. As regards officials they had got the best, and despite the cry about raising salaries he believed that when they had good men they should pay them well. He pointed out that they were now paying a rate of 2/6 to 3/- for interest on borrowed money and expressed the opinion that money was too readily borrowed for big schemes. He went on to refer to the late Mr. King's appointment as Veterinary Inspector to the Markets Department, and to the valuable assistance rendered by him. This work had proved so valuable that now they had three qualified assistants to the Chief Veterinary Inspector. Then the Sanitary Committee appointed the President of the Lancashire V.M.A. to safeguard the milk supply, on which the health of infants so much depended. The death rate was much less than formerly and would, he believed, go down still further.

Councillor KAY also responded. He was sure that money spent in veterinary inspection was not thrown away, but sufficient was not spent. He thought they did not go far enough with the powers they had, and also with the notification of various diseases prevalent in the country. He was afraid the citizens did not appreciate the great benefits received from the assistance of the veterinary profession in the good health of the city. Whatever was done in building up health was money well spent.

Mr. HEAP, ex-President of the National Federation of Meat Traders of Great Britain, proposed "The Veterinary Profession." He proposed the toast with great sincerity, because the trade which he represented has a very close and intimate connection with the veterinary profession. It is hoped that the connection will become more intimate. He congratulated the Councils of Manchester and Salford on having such efficient staffs of inspectors.

As meat traders they had confidence in the inspectors, and thought the confidence was reciprocated; the result being that not only did their trade benefit but the community benefitted to a greater extent. Unfortunately for their trade this district is an exception, and meat inspection in the country is a farce and a disgrace. They had appealed to the Local Government Board to get uniform inspection of meat.

They would probably remember that two years ago an effort was made to obtain a warranty when buying cattle, but failed. It was not fair play after having bought cattle apparently sound to find after slaughter that they were diseased and that they had to bear the loss. The meat traders invited the veterinary profession to assist in igetting this altered, and in obtaining efficient inspection throughout the country. He went on to refer to the inspection of meat by sanitary inspectors, and said that the work should be only in the hands of those who had made diseases of animals their special study. He also took exception to medical men doing this work.

The inspection carried on in regard to the milk supply was a wise provision. As meat traders they had some reason, however, for objection in this regard. They had known cases where medical officers on finding cattle suspected to have tuberculosis of the udder had stopped the use of the milk and advised that the animal should be fed up and sold to the butcher. The butcher may then find that what he had paid full price for may be entirely condemned, and he had no redress. The butcher should not be so penalised. The cattle found to be giving tuberculous milk should be branded in such a manner that could not be effaced. It was merely playing with the situation to stop tuberculous milk and let a man sell tuberculous meat.

Mr. GARNETT thanked Mr. Heap for his remarks, and said that nothing but good could come from friendly exchange of views. He thought the veterinary profession as a whole would support Mr. Heap. They all deplored that men who understood drain pipes should have to inspect meat also: and because a medical man had been appointed an inspector he should presume to understand the inspection of meat. That was an injustice to the public.

"The President of the Lancashire V.M.A." Mr. TAYLOR said the toast allotted to him was that of the chief officer of the Society. In looking through the records of the history of the Society he was disappointed in not being able to trace names of the Presidents of the various years of its existence. Fifty years—half a century—was a long time, yet he could claim to have been cognisant of the birth of the Society. As a lad in his teens he was his father's satéllite at many of their earlier

meetings. It would be unfair to attempt to extol one President at the expense of another, but he could assure them from a personal knowledge of the whole lot that the Association never had a better President than the man who occupies the position at the present time

Fifty years ago a handful of veterinary surgeons met, he could not say where, but possibly their first meetings were held at the Brunswick Hotel. The Association had existed for fifty years, and what has it done? Has it done good, or has it done ill to the inhabitants of the city and to the profession itself. He ventured to assert, without fear of contradiction, that it has done good to the profession and to the public. The Association was chiefly instrumental, through the late lamented Sam Locke, who was then a member of the City Council, in bringing forward the importance of the inspection of meat in that city. Through their representation, and through Mr. Locke, Mr. King was appointed to the position when Mr. Atkinson relinquished it. In that respect Manchester was fortunate in getting such a good man. Manchester had again been fortunate in Mr. King's successor, and it was evident that the City Council think so, inasmuch as they have appointed three assistants. He also ventured to think their Association had done good by drawing the attention of public health authorities to the serious consequences of the consumption of tuberculous milk and tuberculous meat.

On the success which followed the appointment of veterinary surgeons as meat inspectors, the City Council chose to appoint a gentleman (the President) as assistant to the Medical Officer of Health of the City of Manchester, and it was their bare duty to thank Mr. Brittlebank for the services he had rendered to the profession and to the City.

It had been said that medicine was assuming different phases, and we now have to look to the prevention of disease almost as much, if not more than, to the cause both in man and animals. That was the situation of the veterinary profession as a result of the advent of motor traction. That position had been clearly seen years ago, and the education of the veterinary student had been pursued on different lines. Now they possessed men fully qualified in every sense to be appointed as State Veterinary Surgeons in public health matters, and young men will have to look to these posts in the future as probably more remunerative than those of ordinary practitioners.

If the State calls upon those who are in power to do everything to prevent disease then, he contended, the State should see that the laws they make are carried out in their entirety throughout the country—that their Acts should not be permissive but obligatory. As to compensation that should never be allowed to become a personal matter. Public health is a national matter, and the nation ought to pay for it.

Once more he wished to allude to the services performed by the President in his position in the City, and to the able manner in which the business of the Association had been conducted during the past twelve months. So well had this been done that he had been re-elected. During the ensuing year the National Veterinary Association will meet in Manchester. On the occasion of the last visit they were entertained by the then Lord Mayor, and they ventured to hope that in the coming visit the City Counell would see their way to receive and pay respects to a useful National Association.

The toast was followed by singing "He's a jolly good fellow."

The PRESIDENT, in reply, said he hardly knew how to thank them for the kindly manner in which they had received the toast so kindly proposed by his dear old friend, Mr. Taylor. Little did he think some eleven years ago when he came to Manchester (he might say that one of his first duties was to become a member of the Lancashire V.M.A.) that he would stand before them as President on the jubilee celebration. He need hardly say how proud he was to be President of an Association which had taken such a prominent part in the active life of the veterinary profession.

Mr. Taylor had referred to their very long history and he echoed the sentiments of all present in congratulating Mr. Taylor in being able to recount so many years of history of the old Association. They were proud to see Mr. Taylor back amongst them looking better, and they hoped he had finished with the operator and that he may permanently resume that position himself.

On entering upon the duties twelve months ago he asked for their kindly indulgence and this had been granted to the very fullest extent. It was a most gratifying feature to have the unswerving loyalty of every member, and whilst that loyalty exists in an Association such as theirs, bound together by the common needs of the profession, the duties of President will not be onerous. Mr. Heap had referred in a very kindly manner to the veterinary profession, and he (the President) thanked him for his personal reference.

The President said that the part he played in the field of municipal life or preventive medicine is but a small one. It is hoped that as years go on the field will extend, and that we shall ultimately get uniformity of action throughout the country both as regards meat and milk.

He felt bound to refer to Mr. Heap's remarks regarding the disposal of cattle whose milk has been condemned. When cows were found to be giving tuberculous milk and were condemned they were not sent into the market if it could be avoided. In the year 1910, in his own experience, he succeeded in getting slaughtered in his presence every cow which he had condemned as suffering from tuberculosis, and each cow was inspected on the conditions laid down by the Local Government Board as to whether the meat was fit for food or not. If fit for food every facility was given in the way of disposing of it. The offence, so far as Manchester is concerned, is not so much a question of a man having a tuberculous cow as not deciding to kill it.

With regard to the appointment of municipal veterinary officers, it was gratifying to know the part which the society had played. They must also thank their friends—the medical profession—for their help. Some twenty years ago a deputation from the Medico-Ethical Society waited upon the City Council and impressed upon them the necessity of appointing a veterinary officer. The Chairman of the Society at that time was the late Dr. Ashby, who was a keen and sincere admirer of the veterinary profession in all its phases. There was present with them that night in Prof. Delépine an admirer of the profession whose work on their behalf they could never fully thank him for. He felt sure that the Professor's interest in the profession would never wane.

In conclusion, he wished to remind members of the coming visit to Manchester of the National Veterinary Association, and their duty in making the visit a complete success.

The usual toasts to "The Visitors" and "The Ladies' concluded the list.

The Ottawa *Evening Journal* of Feb. 6 says: "It is learned that Hon. J. G. Rutherford, Chief Dominion Veterinarian, has handed in his resignation to Hon. Martin Burrell, and will go to British Columbia. It was thought that Dr. Rutherford would reconsider his determination to drop out of the service; however he has decided to retire to private life. Dr. Rutherford has been a valuable servant to Canada, and his retirement will be generally regretted."

DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.		Anthrax. Outbreaks Confirm'd	Anthrax. Outbreaks Reported	Anthrax. Animals Confirm'd	Anthrax. Animals Reported	Foot-and-Mouth Disease. Outbreaks	Foot-and-Mouth Disease. Animals.	Glanders * (including Farcy) Outbreaks	Glanders * (including Farcy) Animals.	Parasitic Mange. Outbreaks	Parasitic Mange. Animals.	Sheep Scab. Outbreaks	Swine Fever. Outbreaks.	Swine Fever. Slaughtered. *
GT. BRITAIN. Week ended Mar. 9		33		34				4	17	116	212	7	56	679
Corresponding week in	1911	13		15		1	12	3	7			18	42	527
	1910		38		47			7	13			8	29	122
	1909		25		30			9	48			21	23	250
Total for 10 weeks, 1912		262		299				36	79	1316	3134	128	588	7535
Corresponding period in	1911	212		240		1	12	45	171			263	349	3896
	1910		312		379			68	198			252	232	1661
	1909		277		370			105	308			333	286	2310

* Counties affected, animals attacked: London 15, Stafford 1, City of Edinburgh 1.

Board of Agriculture and Fisheries, Mar. 12, 1912.

		Outbreaks									
IRELAND. Week ended Mar. 9	...	...	...	...	...	...	1	14	3	31
Corresponding Week in	1911 ...	...	...	...	...	...	...	3	9	4	102
	1910 ...	...	...	...	...	...	...	3	22	1	13
	1909 ...	...	...	...	...	...	...	3	19	3	46
Total for 10 weeks, 1912	...	1	1	...	...	...	...	24	181	30	245
Corresponding period in	1911 ...	3	3	...	...	..	...	25	178	30	583
	1910 ...	4	6	...	...	...	...	20	213	7	228
	1909 ...	1	1	...	...	...	...	25	184	8	59

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Mar. 11, 1912

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection

PARLIAMENTARY.

VIVISECTION OF DOGS.

In the House of Commons on Monday, March 10th.

Sir F. BANBURY (City of London, Opp.), moved:—"That in the opinion of this House no operation for the purpose of vivisection should be performed on dogs." The hon. baronet said he was not opposed to vivisection on other animals, but his contention was that the dog, as peculiarly the friend of man above all other animals, should be immune from the torture of experiments. He quoted from the Report of the Royal Commission to show that there was not a consensus of opinion among eminent surgeons and physicians that it was either right or necessary to use dogs for this purpose.

Col. LOCKWOOD (Essex, Epping, Opp.) seconded the motion. As a member of the Royal Commission he said that he was one of those who objected to dogs being used for the purposes of vivisection. He laid stress on the fact that the evidence submitted to the Commission showed the wide diversity of opinion prevailing among doctors and scientific men as to the need for carrying out experiments on dogs. He maintained that the evidence of distinguished physiologists went to show that though the House might be slightly in advance of scientific opinion if they passed the resolution of the hon. baronet, the great preponderance of opinion was in favour of exempting dogs. The House would, in his opinion, be acting well within its province if it adopted the resolution.

Mr. MCKENNA said that a Royal Commission had been investigating this subject for six years, and its report had appeared for the first time that morning. He had only had an opportunity of perusing that report very cursorily, and he told the House at once that the motion placed him in great difficulty, for he was asked to agree to an expression of opinion which would lead to a reversal of the policy of his predecessors for a great many years past. If he could be convinced upon the evidence, considered in the light of such advice as he could obtain from the experts at the Home Office, he did not know that he should hesitate to support a Bill having for its object the carrying out of the hon. baronet's policy. To accept or reject the motion would be to prejudge the report of the Royal Commission. He hoped the hon. baronet would not press his motion, but, if he did, he could neither vote for nor against it. Whatever the decision the House came to it should be understood that the motion only dealt with the limited question whether dogs should or should not be excluded from vivisection.

Mr. GUINNESS (Bury St. Edmunds, Opp.) said the evidence was overwhelmingly in favour of dogs being allowed to be the subjects of vivisection subject to the present restrictions.

Wednesday, March 13th.

THE BOARD OF AGRICULTURE.

On the report of the Vote for the salaries and expenses of the Board of Agriculture and Fisheries.

Mr. MOUNT (Berks, Newbury, Opp.) complained of the delay in making the grants to agricultural colleges and institutions and the hindrance thereby caused to experiments and research being carried out.

Capt. JESSEL (St. Pancras, S., Opp.) drew attention to the financial difficulties of the Royal Veterinary College, and pleaded for more substantial support from

the Government in the interests of students and the treatment of animal diseases.

Mr. A. HERBERT (Somerset, S., Opp.), as representing a constituency which had suffered severely from the disease urged that hard and fast regulations should give way to exceptional circumstances in the situation of a farm. The fifteen miles radius was not always a necessary safeguard.

Mr. RUNCIMAN (Dewsbury), in replying to several questions, mentioned that the amount of the grant for research work to the Royal Veterinary College was £1390. He had recently received a deputation from the College, and the views put forward were under consideration.

THE REGISTER FOR 1912.

We may commence a brief notice of this year's Register by saying that it continues to show the steady extension and improvement which we are now accustomed to expect and to see in it. For the third year in succession, it is published from the office of the R.C.V.S., and its price is the same as before, 3/6, post free. But it has increased somewhat in size—442 pages as against 424 last year—and there are several noteworthy additions. One is quite a novelty—viz., copies of all the written questions set at the three professional examinations held in 1911; and it is possible that this new feature may lead some students to become purchasers.

The other additions are all legal in character. There are copies of the Diseases of Animals Act, 1909, and the Notification of Diseases Order, 1910; and also two short extracts from the Protection of Animals Act, 1911, and the Coal Mines Act, 1911, respectively.

All these are of real importsnce to the working practitioner.

As usual, the lists have been revised, and we have now only 3417 members against 3423 last year. The number of registered practitioners is 226 against 244 last year—a surprising small reduction, considering the age that most of them must have reached. One or two minor improvements in connection with the lists should be mentioned—a useful explanatory note at the head of the members' list (p. 131), and a more valuable piece of information above the Canadian list (p. 355) to the effect that certain provinces of the Dominion impose a special examination upon veterinary surgeons before permitting them.

Last, but not least, these are fully twenty-four names listed under "Addresses wanted." All these names, in default of information, will be removed from next year's Register; and thirteen have been thus removed from the present one. We call the attention of members sharply to this; we cannot do more.

A MANUAL OF POISONOUS PLANTS. Chiefly of Eastern North America, with Brief Notes on Economic and Medicinal Plants, and numerous illustrations. By L. H. PAMMEL, PH.D., Professor of Botany, Iowa State College of Agriculture and Mechanic Arts. In two Parts. Pp. x + 977. (The Torch Press, Cedar Rapids, Iowa).

Botanical toxicology has so far not received its due meed of attention from authors writing from the veterinary point of view. Most text books upon veterinary medicine devote some space to it, but necessarily not much. A fair amount of matter relating to it is scattered throughout the scientific journals of the world: but the bulk of this is quite inaccessible to the ordinary reader. Hitherto we have had no single large treatise devoted exclusively to the subject; and the work before us therefore comes to meet a real need. We may at once add that it does so more than adequately.

The work is divided into two volumes of very unequal size, the first containing 150 and the second more than 800 pages. The first might fairly be called a comprehensive survey of botanical toxicology, and the second an encylopedia of toxicological botany. The first volume commences with a historical review, and then proceeds to deal in detail with the toxicology of the different classes of plants, concluding with chapters upon the classification of poisons, symptoms, and antidotes, the chemistry of vegetable toxicology, and a catalogue of the chief poisonous plants of the United States and Canada.

The second volume naturally opens with a key to the plant kingdom; and this is followed by some 640 pages describing the various families from Myxothallophyta upwards, with special attention to poisonous or injurious species. The classification is arranged in the order given by Engler and Prantl in their work *Die Pflanzen familien*, and flowering plants are described more fully than the lower forms. Some 60 pages are then occupied by a catalogue of the poisonous plants of the world, and then with an excellent bibliography and index, both necessarily very long, conclude the work.

It will thus be seen that the author has undertaken a stupendous task, and he has increased its magnitude by placing the widest interpretation upon the word "poisonous," and including many plants of doubtful or only occasional toxicity. This is an error upon the right side, but it greatly increases the size and complexity of the work, as does also the inclusion of many microscopic organisms such as bacteria, aspergilli, and dermatophytes. In fact, the book covers so vast an amount of ground, and represents so much reading and research, that it is best to treat it as a whole, and so summarise its value without any criticism of details. Admittedly it is largely a compilation. Hundreds of authors, chiefly American and German, have been freely drawn upon and quoted; and similarly the very numerous illustrations—about 17 plates and some 500 figures—are largely derived from other reliable American and Continental sources, though a good many are original.

A great deal of borrowing, however, is imperative in such a work; and we may say broadly that extracts and figures are well chosen, and that the original portion of the text is excellent in every respect—well arranged, clearly and concisely written, and not overburdened with technicalities.

On the whole, then, we may thank Prof. Pammel and the numerous collaborators whose help he acknowledges for the best book of its kind which we know of in this language. We have many good books upon botany pure and simple, but not upon toxicological botany; and we need only add that the present one, giving very special attention to the subject from the veterinary standpoint, will be much more useful to the veterinarian than to the physician. One factor which may militate against its success is that its scope may be thought to exceed the requirements of the general practitioner—but that, again, is an error upon the right side.

W. R. C.

There is some talk about establishing a national testing station *for cattle intended for export*. One would have thought the health of the people at home would have received priority of consideration, especially when medical officers of health are so insistent in dinning into our ears the awful terrors of unsound meat. Untested, uncertificated, unwarranted animals are good enough to sell to the British butcher.—*M. T.* J.

Watered Oats.

At Croydon a special sitting was held for the hearing of summonses taken out by the Board of Agriculture against Henry Leslie Hall, of Whitehorse Road, Croydon, for applying and causing to be applied a false trade description to 100 quarters of 40 lb. Plate oats to which an amount of water had been added, and for selling the cereal to Messrs. Hall and Co., Croydon, Ltd. Mr. Graham Campbell (instructed by Mr. Percy Nicholls) appeared for the Board of Agriculture; and Mr. J. George Joseph (instructed by Councillor Wood Roberts) defended.

Mr. Campbell told the magistrates that the defendant was a corn and forage contractor, and it was alleged that he had committed an offence under Section 2 of the Merchandise Marks Act, 1887. In two summonses it was alleged that the defendant applied to certain goods a false trade description, and in another that he caused to be applied a false description by describing, in an invoice despatched to the buyer, certain oats, which were properly known as damped or watered oats, or prepared oats, as 40 lb. Plate oats. The penalty was a term of imprisonment not exceeding four months, or a fine not exceeding £20. The case was one of considerable importance; large quantities of oats were imported into this country from the River Plate district of South America, and either sold in their natural state, in which case they were properly described as Plate oats, or 40 lb. Plate oats—40 lb. meaning weight per bushel—or if water was added it was the custom of the trade that they should be described as damped, watered, or prepared oats. Messrs. Hall and Co., Croydon, sent to defendant an order for 100 quarters of best Plate oats at 20s. 9d. per quarter, and the oats were received, followed by invoices describing the purchase as Plate oats.

In a letter to the Board of Agriculture defendant admitted that the oats were damped Plate oats. In ordering oats counsel said defendant asked for "Plate oats," which he suggested meant prepared oats, and then invoiced them as 40 lb. Plate oats. Samples analysed contained from 4½ to 5 per cent. more water than sample genuine Plate oats. Therefore, Messrs. Hall and Co. really got ninety-five quarters of oats and five quarters of water.

Mr. George Walter Roffey, a member of the committee of arbitration of the Corn Traders' Association, said oats grown in the River Plate district sold in this country in an artificial state were described as Plate oats, and such oats artificially prepared as watered or damped oats.

Cross-examined: It was common to wash cereals coming into this country. He did not sell washed oats. He admitted that Egyptian oats arrived with a great deal of earth upon them, and that Russian oats contained more water than Plate oats.

Albert Daniell Howell, of Messrs. Howell and Co., corn merchants, of Bankside, S.E., of twenty-eight years' experience, said dealers sold damped oats to make larger profits, and he warned customers against buying them.

A delivery clerk in the employ of Messrs. Vogan and Co., of Dockhead, said in January defendant was buying damped Plate oats of them. They were undoubtedly very much better for feeding horses, and River Plate were preferred in that way.

Mr. Joseph submitted that there was no case to answer. It was admitted that the defendant supplied Plate oats, and that they were 40lbs to the bushel. Would it be a false description of himself, asked counsel, to say his name was not Joseph, because he had had a bath that morning? (Laughter.)

The Bench decided that the case must proceed.

Defendant, giving evidence, said his price showed a profit of 6d. per quarter. His price for unwashed oats would have been 22s. He found his customers preferred damped oats. It had been held in a previous case that these were River Plate oats, and he thought it was a right description.

The Bench decided to convict, and fined defendant £5, with taxed costs.

Notice of appeal was given.

A pedestrian who is tossed by a cow has no redress This dictum was laid down at Grimsby last week in a judgment arising out of a claim for damages against a local butcher by a cycle maker who was tossed by a cow and sustained concussion of the spine and other injuries. His Honour said he found that the weight of cases favoured the butcher. There were two kinds of animals; those of a fierce nature and those of a quiet nature. In the latter class were included cows, oxen, horses, and most domestic animals, and the law entitled the owner to drive them along the streets without taking any special precautions against their doing evil. The law dated from purely agricultural days, but in modern times the public thoroughfares had become busy and various kinds of vehicles had been introduced. He had, however, to interpret the law as he found it, and it was with regret he gave judgment for the defendant.—*N. B. A.*

Donations to R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following donation to the College funds from:

Maj.-Gen. F. Smith, Westcombe Park, S. E.	£1	1	0
Amount previously acknowledged	8	8	0
	£9	9	0

ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

War Office, Whitehall, March 8

Special Reserve of Officers.
Army Veterinary Corps.

J. M. Armfield to be Lieut. (on probation). Dated March 9.

OBITUARY.

James Fingzies, M.R.C.V.S., Elm Cottage, Lochgelly' Fifeshire. Graduated, 1860. Edin: Jan. 1880.

Mr. Fingzies died at his residence on March 11th, from cardiac failure. Aged 75 years.

Communications for the Editors to be addressed 20 Fulham Road, London, S.W.